WHY ARE THERE CONTAMINANTS IN THE WATER?

Drinking water, including bottled water, may

is governed by the Food and Drug Administration and must provide the same level of protection against amounts of some contaminants. The presence of contaminants as public drinking water regulations do. by calling the Environmental Protection Agency's Safe Drinking Water Hotline. (800-426-4791) Bottled water contaminants and potential health risk can be obtained poses a health risk. contaminants does not necessarily indicate the water reasonably be expected to contain at least small More information about

present in source water include: substances resulting from the presence of animals or cases, radioactive material, and can pick up dissolves naturally-occurring minerals and, in some bottled water) includes rivers, lakes, streams, ponds, from human activity. Contaminants that may be the surface of the land or through the ground, it reservoirs, springs, and wells. As water travels over The sources of drinking water (both tap and

plants, septic systems, agriculture livestock operations and wildlife. example: Coliforms are bacteria which are naturally present in the environment and are used as bacteria, which may come from sewage treatment an indicator that other, potentially-harmful bacteria may Microbial contaminants, such as viruses and

metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming. Example: Some people who drink water and increase in their blood pressure. contaminant level over many years could experience containing barium in excess of the maximum Inorganic contaminants, such as salts and

runoff, and residential uses. Example: Some people who drink water containing atrazine well in excess of Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of can also come from gas stations, urban stormwater industrial processes and petroleum production, and or reproductive difficulties. experience problems with their cardiovascular system the maximum contaminant level over many years could

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. Example: Certain radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the minerals are radioactive and may emit a form of have an increased risk of getting cancer. maximum contaminant level over many years may

> unregulated contaminants. included in synthetic organic contaminants and the stormwater runoff, and residential uses. This is from a variety of sources such as agriculture, Pesticides and herbicides, which may come

SHOULD | TAKE SPECIAL PRECAUTIONS?

guidelines on appropriate means to lessen the risk of at risk from infections. These people should seek advice from their health care providers. EPA/CDC persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system population. Immuno-compromised persons such as infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking disorders, some elderly, and infants can be particularly contaminants in drinking water than the general Water Hotline (800-426-4791). Some people may be more vulnerable to

GENERAL SYSTEM INFORMATION

Water for microbiological analysis. In addition, the city also has four certified standby operators who work in other departments within the city. Additional duties of the operators are; collecting distribution samples and analysis in the plant as well as the distribution system. The laboratory is certified with the State Division of standpipe and the elevated tanks as well as in-plant the State of Kentucky. There is also a full time laboratory technician to perform microbiological water. There is approximately 150 miles of pipe in the distribution system. The system employs 5 full time distribution operators, 4 are State certified. Average storage tanks and one standpipe, our distribution system has a total storage of 2.45 million gallons of maintenance. Paris has approximately 4,866 water meters with an estimated total population served of 16,058 as of December, 2007. With two elevated who hold both treatment and distribution licenses with Bluegrass Water Supply Commission, Operators Association. Paris is also a member of the are members of the Kentucky Water and Wastewater American Water Works Association and its operators plant in the event that a chlorine leak should occur in 1999 and updated in 2004 for the water treatment risk management plan, as required by law, was created are operating at 54% of our total treatment capacity. A treatment capacity is 3.0 million gallons per day. We use is 1.61 million gallons per day and the plant's total The City of Paris Combined Utilities is a member of the The plant is staffed by five full time operators of ten regional municipalities that are

working to resolve central Kentucky's water supply

HOW CAN I BECOME MORE INVOLVED?

treatment can be directed to the plant superintendent by calling 987-2118. If you need emergency service after hours or on weekends or holidays, call central communications at 987-2100. The city commission meetings are held every second and fourth Tuesdays of the month unless otherwise announced. The meetings begin at 6:00 p.m. and are held at the commission chambers of the Paris Municipal Center, questions, help can be obtained by calling the city office at 987-2110. Technical questions about water the city manager who in turn reports to the Mayor and city commissioners. If you have billing or service managed by the plant superintendent who reports to means that it is owned by the City of Paris. It is 525 High Street. For additional information about the City of Paris and the Combined Utilities, please visit our website at Www patts ky gove. The water system is municipally owned which

alquien que lo entienda bien. importante. Este informe contiene informacion muy Traduzcalo o

CRYPTOSPORIDIUM

compromised individuals. Healthy individuals should recover from this infection with no problems. Paris began monthly testing of Stoner Creek for cyrptosporidium in June of 2005 with no detections Cryptosporidium is an intestinal parasite that is sometimes found is surface water sources such as occurring in 2005, 2006 or 2007 that could possibly be a severe health risk to immuno-Stoner Creek. It can cause intestinal flu-like symptoms

2006 WATER QUALITY REPORT

The report for 2006 listed NOV's for HAA's for the following quarters: 4/1/06 - 6/30/06, 7/1/06 - 9/30/06, and 10/1/06 - 12/31/06. Required language about the health effects of HAA's was left out of the report. The language is listed in this year's report. (see 2007 HAA violation)

2007 NOV's

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what situation. We routinely monitor for the presence of drinking The City of Paris Combined Utilities has levels of Haloacetic Acids (HAA's) above drinking water standards. you should do, and what we are doing to correct the

2007 Water Quality Information

			-			-	,							
.001.	Turbidity INTU)	TOC* (Total Organic Carbon)	Haloscetto Acids (ppb)	lotal Trihalomerhanes (200)	Total Coliform (Colonies: Labrit)	Combined Radium (pChL)	Nitrite (Aprili)	Nitrate (ppm)	Fluoriue (ppm)	Сінопле (рран)	Cinoramnes (ppm)	847cm (25m))	Arsenic (ppu)	Substance
s are calculated figur To b	TT (95% of monthly (95% of monthly	Ξ	ъ. Сі	âŭ	Positive/month	5		5	+	MRDL - 4	MRDL - 4	N	10	WICL
ing a ratio of a	N/A	N/A	N N	N/A	N 2	0		10	+	MRDLG - 4	MRDLG - 4	2	oʻ	MCLG
ctrial percentage	0.012 - 0.761	0.45 - 1.53	27 3 - 52 0	200-988	0 · 1	15-17	<0.05 - 0.05	0 12 - 2 02	1 03 - 1 31	070-290	0 80 - 3 00	0.018 (one sample)	<) (one sample)	High-Low Range Detected
liguring a ratio of actual percentage ϵ moves thirder by the require To be in compliance, the ratio must be greater than or equal to 1.0.	SE 9 (Lowest monthly % ~ 6.3)	1 0 (Lowest RAA)	70-7 (Highest RAA)	61 9 Highest RAA)	۸ - ۱	<u>.</u>	<0.05	1 24	_1 	2 48	278	Ū 01 6	<u>.</u>	Annual Average Violations
by the require	NONE	Yes	Ύes	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Violations
TOC's are calculated figuring a ratio of actual percentage semoved divided by the required percentage removed. To be in compliance, the ratio must be greater than or equal to 1.0.	Sul navort	Naturally present in the environment	By product of drinking water distribution	By-product of unnking water disinfection	Naturally present in the environment	Erosion of natural deposits	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits	Runoff from fertilizer use, leaching from septic tanks, sewage, diosion of natural deposits	Erosion of natural deposits, water adultive that promotes strong teeth discharge from fertilizer and aluminum factories.	Water additive used to control inforobes	Water additive used to control microbes	Discharge of utilling waste, discharge from metal refineries, erosion of natural deposits	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production waste.	Source

Corrosion of household plumbing systems, erosion of natural deposits	NONE	ن45 م ، 100 ق×	0	160.0	ū	3.4.	(ஷ்முள்
Corrosion of nousehold plumbing systems, erosion of natural Jeposits	NONE	-4- 	Đ	Oi	0	15.4	Lead (ppp)
Source	Violations	Number of High - Low Percentile above Action Range Detected Level	Number of samples above Action Level	90th Percentile	MCL MCLG Perce	M.C.I.	Substance

ABBREVIATIONS

PPB - Parts Per Billion
CaCO3 - Calcium Carbonate
S.U. - Standard Units
TT - Freatment Technique
- Greater Than
- Greater Than
MCL - Maximum Contaminant Level RAA - Running Annuel Average
MCL - Maximum Contaminant Level Goal

DEFINITIONS

MCLG - Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health.

MCL - Maximum Contaminant Level or the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

MRDL - The highest level of a disinfectant allowed in drinking water There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants

MRDLG — The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

AL - Action Level, or the concentration of a contaminant which.

when exceeded, triggers treatment or other requirements which a water system must follow.

TT - Treatment Technique, or a required process intended to reduce

T - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

pCl/L - Picocuries per Liter, a measure of radiation. NOV - Violations issued by the Division of Water.

RAA - Running Annual Average is figured querterly using the average of the most recent quarter added with the three (3) previous quarters and divided by four (4).

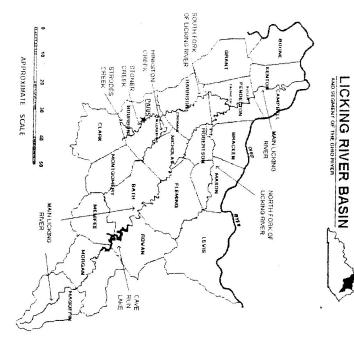
Most samples are the most recent results through 12/31/2007 and in accordance with administrative regulation 401 KAR Chapter 8. Testing compliance periods are in three(3) years periods and are part of a nine(9) year cycle which runs 1/1/2002 to 12/31/2010.

SOURCE WATER ASSESSMENT AND PROTECTION PLAN (SWAPP)

major roads, to hazardous chemical users contaminant sources include everything from septic systems, to release of contaminants with in the area. greater watershed that cumulatively increase the potential for the potential contaminant sources of moderate concern within the there are numerous permitted operations and activities and other waste generator and/or transporter are causes for concern. Finally crops, municipal sewer lines. A KPDES permitted discharger and a KY 627 and KY 1678 near Kennedy Creek. In addition, areas of row reach the intake. The same is true for railroads that occur between An accidental release of contaminants from any of these sites could vicinity of the intake may pose a potential threat to the water supply areas of high concern. Several highway bridges in the immediate that this susceptibly is generally moderate. However there are a few susceptibility of the Paris Water Supply to contamination indicates a railable for inspection. Please call Kevin Crump at the Paris Water Flant at 987-2118 to make arrangements. An analysis of the contamination, which is part of the completed Source Water Assessment Protection Plan (SWAPP) Following is a summary of the Paris system's susceptibility to The completed plan is These potential

WHERE DOES OUR WATER COME FROM?

Creek. compared to some supplies as there is not a lot of Strodes Creek which is a major tributary of Stoner Stoner Creek originates in Clark County as does dams were raised in the 1950's. City of Paris controls on Stoner Creek. There have not gallons. Plant personnel maintain the dams that the water source with a total gross storage of 378 million treatment problems. We have four dams on our raw cause heavy algae bloom which in turn creates industrial pollution. However, we are plagued by runoff been any major problems with drought since two of our from farm land. Both are part of the Licking River drainage water, as its sole source of drinking water Our raw water supply is relatively good The City of Paris uses Stoner Creek, a The fertilizers from the runoff can



HOW IS OUR WATER TREATED?

Water from Stoner Creek is pumped into the rapid mix by the raw water (tow service) pumps. It is pumped in at a rate of 2,100 gallons per minute. This flow rate is important in that all detention times throughout the treatment process are based on this flow rate. Here, alum, lime, sodium permanganate and carbon are added and thoroughly mixed with the creek water. Dosages will vary depending on the water conditions. Detention time in this basin is one (1) minute.

It then flows into the coagulation basin where it is slowly mixed by two (2) mechanical paddles. As the water flows through, the chemicals reacting with the particulate matter starts to form what is known as floc particles. These particles continue to grow in size and mass as they continue through this basin. Also, the sodium permanganate is reacting during this time to oxidize any metals (example: iron, manganese) that may be dissolved in the water as well as oxidizing other organic materials present. The detention time for this basin is forty (40) minutes. Chlorine is added for disinfection at the effluent (exit) of this basin.

The water then flows into the settling basins where the floc particles settle to the bottom of these basins. The settled water flows to the filters. The detention time of the settling basins is approximately four (4) hours.

There are four (4) filters that are called dual media rapid sand filters. They utilize both sand and anthracite as the filtering medium. The filters are equipped with rate of flow gauges and controllers that maintain a constant and balanced flow through each filter. These filters retain any particles that may not have been removed in the settling basins. They filter at a rate of two (2) gallons per square foot per minute. Chemicals added in the filter effluent are fluoride ammonia and chlorine. Caustic soda is added to help control the pH (pH indicates whether the water is an acid or a base).

When the water leaves the filters, it enters the clearwells were it is stored on site. The treatment process is complete other than the contact time with the post chlorine or chloramines which is added after the filters. By the time the finished water reaches the high service pumps, the chlorine contact time is complete and the water is then pumped into the distribution system where it reaches the City of Paris customers. Water is stored in a standpipe and the two (2) elevated tanks that are part of the distribution system. Samples are taken daily and tested in our lab to help ensure the quality of the end product.

TEMICALS USED

<u>Alum</u> - The chemical name is aluminum sulfate. This is used to help form floc which helps settle the particulate matter out of the water.

Lime - The chemical name is calcium hydroxide. It helps provide additional alkalinity for the formation of floc and helps to adjust the pH of the water.

Chloring This is used to disinfect the water by inactivating harmful bacteria.

Sodium Permanganate - This is used to oxidize metals such as iron and/or manganese and other organics, It also helps control taste and odor problems.

Powdered Carbon - Also called PAC (nowdered powdered)

Powdered Carbon Also called PAC (powdered activated carbon) This is added to help reduce taste and odor problems through adsorption.

Caustic Soda The chemical name is sodium hydroxide. This is used occasionally for pH control Fluoride - The chemical name is hydrofluosificic acid. Its sole purpose is to prevent tooth decay.

<u>Ammonia</u> - Also called anhydrous ammonia. This combines with chlorine to form chloramines.

IS OUR DRINKING WATER SAFE?

Yes. Our drinking water is monitored daily at the plant and in the distribution system to ensure proper treatment. We also send water samples to our contracted certified lab to check for over 100 possible contaminants. Those detected are listed with their results in this brochure. Our system did receive some NOV's in 2007. See NOV section for further details.

WHAT IS THE REASON FOR THIS REPORT?

The 1996 Safe Drinking Water Act Amendments require that, beginning in October 1999, all community water systems provide customers with an annual report on the quality of their drinking water.

6/30/2007 show that our system exceeded the standard following quarters, 1/1/2007 - 3/31/2007 and 4/1/2007 running annual average (RAA) that we received for the directly related to the amount of disinfection byproducts our water source, were elevated this past year due to low may have an increased risk of getting cancer. We fee containing HAA's in excess of the MCL over many years risk. If it had been, you would have been notified concerns, consult your doctor. This is not an immediate 62 PPB You do not need to use an alternative (e.g. 3/31/2007 was 70 PPB and from 4/1/2007 - 6/30/2007 was running annual average (RAA) for HAA's from 1/1/2007 standard for HAA's is 60 parts per billion (PPB) try and remedy this situation. the water from harmful bacteria and other microbes. We chlorination process. Chlorination is necessary to disinfect that Total Organic Carbon (TOC) levels in Stoner Creek immediately. However, some people who drink water for each quarter has dropped well below the MCL. reported for the four quarters of 2007 as the levels of HAA flows in the creek in the Summer of 2006. The amount of have enhanced and increased our treatment processes to (which includes HAA's) that are formed in the water by the TOC (which has no health effects) in the source water is ottled) water supply. However, if you have specific health Test results measured as Good results have been

compliance period 01/01/2005 - 12/31/2007. This is a of 401 KAR 8:400 as it relates to atrazine for the entered on the submittal form. population was not at risk nor were there any adverse using the proper methods and the atrazine level was reporting violation in that the wrong analysis code was accurate record keeping. in compliance and Paris will enact protocol to insure reason so seek an alternate water supply. The system is No action is required by our consumers and there was no nealth effects since the atrazine level was below the MCL Paris Combined Utilities received a violation of This was simply a clerical error. The test was performed

 The MCL for the Threshold Odor Number(TON) is 3 that the Threshold Odor Number(TON) is less than one test. Analysis conducted since the initial violation show for the compliance period 01/01/2007 - 12/31/2007 401 KAR 8:600 for failure to conduct a threshold odor test There are no health effects related to the threshold odor

contact Kevin Crump at 859-987-2118 during norma distributing copies by hand or mail. For more information apartments, nursing homes, schools, and businesses) You can do this by posting this notice in a public place or have received this notice directly (for example, people in people who drink this water, especially those who may not Please share this information with all other State water system ID # KY0090343

> Pre-Sorted First Class Mail U.S. POSTAGE PAID Paris, Kentucky PERMIT NO.

Paris Combined Utilities also received a violation

The City of Paris **Combined Utilities** 525 High Street Paris KY 40361

COMBINED UTILITIES

"Over 75 Years of Dependable Service"

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WATER QUALITY REPORT FOR 2007

PWSID# KY0090343